

SE Lab Project Proposal – Team 42

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For our project, we will create a video game utilizing graphics and various input methods provided by the Orbit booster pack. The game will be divided into three main gameplay modes. The first mode will be an over world where you find monsters by exploring through shaking the device. After a monster is found it will enter the second part and turn into a battle where you can catch the monster. The last mode is to train monsters you have caught. Training monsters will make you stronger in battle and catch more monsters. The game will also utilize memory storage to save progress.

Major Software Components Include:

- Implement LCD Graphics and User Interface
- Accelerometer data collection to detect shaking
- Memory system to store save data and game data between plays
- Input system involving buttons and switches
- Game states for searching mode, battle mode, and training modes.

The hardware components we intend to use are:

- LCD Screen
- EEPROM
- Accelerometer
- Buttons
- Switches
- LEDs

Challenges we anticipate are the complexity of the project within the given time span. The utilization of new components for input that we have never used before. Random encounters with different monsters. Drawing sprites on screen for the monsters and maybe simple sprite animation.